

5
February 27, 1984

Environmental (EP) Office

Woodward-Clyde
Suite 2
10842 Old Mill
Omaha, Nebraska 68154

Gentlemen:

Reference your Corps of Engineers, Indefinite Delivery Contract Number DACW45-84-C-0129. We propose to utilize this contract and issue a delivery order for services to be performed at the Tyson's Dump Superfund Site located near King of Prussia, Pennsylvania. The scope of work is as follows:

a. A soil sampling/chemical analysis plan which provides a detailed description of the boring, sampling, sample preservation, decontamination, chain of custody, and analytical methods to be utilized for this project.

b. Soil boring and sampling will be performed as described in Soil Sampling Plan (Enclosure 1). Proper decontamination between samples shall be performed to prevent cross-contamination of samples. Sampling, sample containers and sample preservation shall be in accordance with EPA guideline (EPA SW. 945). A determination of the depth of bedrock and a description of the bedrock will be done.

c. Chemical analysis shall be by EPA approved methods for soils. Methods are base/neutral/acid compounds and volatile compounds on the EPA Hazardous Substance List as identified in Appendix B of the User's Guide to the Contract Laboratory Program, October 1984. Other compounds tentatively identified by spectra library matches will be reported when concentrations can be estimated and are significant. Unit prices for these tests are requested.

d. A quality management plan will be developed which meets the requirement of Draft ER 1110-2-246 (Enclosure 2).

e. A health and safety plan will be developed which meets the requirements of ER 305-1-92 (Enclosure 3) and enclosed instructions.

f. Preparation of a report presenting analytical results complete with results of all quality assurance testing. Three (3) copies of this report is required.

AR302719

For your information, I have enclosed the following information:

- a. Remedial Investigation Report, Tyson's Dump Site, Montgomery County, Pennsylvania, prepared for the U.S. Environmental Protection Agency by Baker/TSA under subcontract to HUS Corporation.
- b. Full-sized drawings from Remedial Investigation Report, Exhibits 2, 3, 5, 6 and 7.
- c. Feasibility Study Report, Tyson's Dump Site, Montgomery County, Pennsylvania, prepared for the U.S. Environmental Protection Agency by Baker/TSA under subcontract to HUS Corporation.
- d. Letter, dated November 23, 1984 from the Corps of Engineers to Mr. Joe Dugandzic of the U.S. Environmental Protection Agency, Region III.
- e. Letter, dated January 25, 1985 from the Corps of Engineers to Mr. Joe Dugandzic of the U.S. Environmental Protection Agency, Region III.
- f. Sample Soil Sampling and Chemical Analysis Plan for Sacramento Army Depot prepared by Woodward-Clyde Consultants.
- g. Sample Quality Management Plan for Sacramento Army Depot prepared by Woodward-Clyde Consultants.
- h. Sample Site Specific Safety Plan for Field investigation for the Sacramento Army Depot prepared by Woodward-Clyde Consultants.

The purpose of this delivery order is to further define the lateral extent of contamination and to determine the actual limits of excavation. The original excavation estimate of 30,000 cubic yards was determined by Baker/TSA in the Remedial Investigation Report. Please provide an excavation estimate based on your investigations and a full sized drawing which indicated the sampling locations.

Please provide the original and one copy of your proposal by March 13, 1985. Mark the envelope to the attention of MROED-C and PROPOSAL, DO NOT OPEN. Upon acceptance of your proposal, a delivery order will be issued covering the services to be performed.

Sincerely,

J. J. Grasso, P.E.
Assistant Chief, Engineering Division
Authorized Representative of the
Contracting Officer

PETERSEN/MROED-C
CONNEALY/MROED-C
McDANIEL/MROED-C
PENNELL/MROED-C
HOKINS/MROED-C
CARLOCK/MROED-C
GRASSO/MROE

Enclosures

CF w/Encl 1:
NRDED-TE (Winnike)
NRDED-L (Eastwood)

AR302720

SOIL SAMPLING PLAN
FOR
TYSON'S DUMP SITE
KING OF PRUSSIA, PA

1. Work shall consist of drilling and sampling from twenty-nine (29) locations as indicated on the enclosed sampling location map. The samples shall be analyzed chemically to define the lateral extent of possible contamination. This information will determine the limits of excavation and eliminate some testing required during construction. *Refusal move within 10' radius*

2. All borings shall be advanced by the auger drilling method to refusal on bedrock. Standard Penetration Tests shall be taken in accordance with ASTM D 1586-67 at 2.5 foot intervals from the surface to the depth at which refusal is met by the sampler or auger on bedrock. The sample recovered from each Standard Penetration Test shall be transferred into an 8 oz. *33* wide-mouth glass jar with teflon-lined caps to a level about 3/4 full ~~and transferred~~ into 2 each 120-ml wide-mouth glass vials with teflon septum lids to near completely full.

3. Duplicate samples shall be obtained from the 2.5'-4.0' foot sample in four of the borings, as shown on the enclosed sampling location plan. A three-inch diameter split spoon sampler shall be used to obtain an adequate volume of sample for the duplicate sample. If this does not provide enough sample, cuttings from the flight auger at this depth shall be consolidated with the material from the split spoon sampler to obtain the two samples. The duplicate sample will be sent to:

U.S. Army Corps of Engineers
ATTN: MRDED-L (Dr. Eastwood)
420 South 18th Street
Omaha, NE 68102

3 spike samples

4. One sample from each boring shall be analyzed for volatiles and semi-volatiles (Base/Neutral/Acid (B/N/A)) extractable compounds on the EPA Hazardous Substance List. ~~The sample shall be located approximately midway between surface and bedrock.~~ *selected from screening* The depths of these samples will vary due to the irregular topography. The remainder of the samples will be stored at 4 Deg. C for 60 days following the completion of this delivery order.

TWO
5. ~~For~~ borings indicated on the sampling location plan shall penetrate into bedrock. These borings should penetrate into bedrock at least five *10* feet with NX size core being recovered. A complete and accurate field log for each boring shall be prepared. Each log shall include name of project, hole number, location of boring, type of drill rig, size and type of bit used, diameter of boring, location of each sample, standard penetration test numbers, water level information (include time-lapse between completion of drilling and measurement), and description of the materials. Soil materials shall be classified using the Unified Soil Classification System. Soil description to follow ASTM D 2488-69. Rock descriptions to use nomenclature prescribed in ASTM C 294-69. Description of material shall include classification, consistency, plasticity, moisture content, color, etc. Description of the bedrock shall be done by a qualified geologist so that the description is adequate to be used for

IF
URHEISTER
SYSTEM
SOIL
CLASSIFICATION

determination of excavation methods. The description shall include but not be limited to hardness and orientation, frequency and nature of fractures. Color photographs of the core with the actual depths and any unusual features noted shall be taken.

6. At completion of each boring, the boring shall be backfilled with a grout mixture of not more than seven (7) gallons of water per 94 pound bag of Portland cement and 2% bentonite by weight. The borehole cuttings and any wash water or other waste shall be stored onsite in 55 gallon drums.

7. The samples shall be collected using a standard sample handling protocol (COE/EPA provided by MRDED-L)* with appropriate chain-of-custody, labelling, etc. In addition to the protocol referenced above which lists appropriate containers, samples sizes, sample preservation, chain-of-custody and labelling requirements, other appropriate references are as follows:

EPA protocol for GC Screen, GC/MS Analysis of Organic Compounds (WA 83-A197, July 18, 1983; Characterization of Hazardous Waste Sites, A Method Manual, Volume II; Available Sampling Methods, EPA-600/4-83-040, September 1983; Preparation of Soil Sampling Protocol Techniques and Strategies, PB 83-206979, May 1983 and Draft Regulation ER 1110-2-246, revised August 1984.

8. No preservatives need to be added, but the samples should be refrigerated at 4 deg. C. Each sample should be analyzed for volatile and Semi-volatiles (B/N/A) organic compounds by a GC/MS scan on the EPA Hazardous Substance List. In addition, the 20 highest non-HSL base/neutral/acid compound peaks and the 10 highest non-HSL volatile peaks are tentatively identified and their concentration estimated, using a forward search of the EPA/NIH Mass Spectral Library or equivalent.

Compounds suspected to be found include 1,2,3-trichloropropanes, xylenes, toluene, ethyl benzene, tetrachloroethene, chlorobenzenes and di-N-butylphthalate.

9. Borings shall be numbered on a logical fashion across the site using "DH 84-" as a prefix to each boring number. Each boring shall be located vertically and horizontally by use of onsite control points established during the remedial investigation. This information shall be provided. A plan showing boring locations and their numbers shall be part of the final report.

* MRDED-L stands for the Corps of Engineers, Missouri River Division Lab.